

What is claimed is:

1. An excitation vector generator for generating an excitation vector comprising:
  - a pulse vector generator having at least one channel for generating pulse vectors;
  - a storage that stores at least one type of dispersion pattern for each of the at least one channels;
  - a selector that selectively extracts a dispersion pattern from said storage for each of the at least one channels; and
  - a disperser that generates a dispersed vector for every channel by convolution calculation using the extracted dispersion pattern and the generated pulse vectors; and
  - an excitation vector generator that generates an excitation vector from the dispersed vectors generated by the disperser.